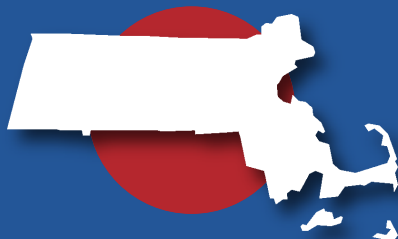


MEASURING UP
2008

**THE STATE REPORT CARD
ON HIGHER EDUCATION**



Massachusetts



THE NATIONAL CENTER FOR
PUBLIC POLICY AND
HIGHER EDUCATION

What Is *Measuring Up*?

Measuring Up is a series of biennial report cards that provide the general public and policymakers with information to assess and improve higher education in each state. The report cards evaluate states because they are primarily responsible for educational access and quality in the United States. This year's edition, *Measuring Up 2008*, is the fifth in the series, which began in 2000. In *Measuring Up*, "higher education" refers to all education and training beyond high school, including public and private, two- and four-year, and for-profit and nonprofit institutions.

The report card grades states in six overall performance categories:

Preparation: How adequately does the state prepare students for education and training beyond high school?

Participation: Do state residents have sufficient opportunities to enroll in education and training beyond high school?

Affordability: How affordable is higher education for students and their families?

Completion: Do students make progress toward and complete their certificates or degrees in a timely manner?

Benefits: What benefits does the state receive from having a highly educated population?

Learning: What is known about student learning as a result of education and training beyond high school?

Each state receives a letter grade in each performance category. Each grade is based on the state's performance on several indicators, or quantitative measures, in that category.

In four of the performance categories — Preparation, Participation, Completion, and Benefits — grades are calculated by comparing each state's current performance with that of the best-performing states. This comparison provides a benchmark for evaluating each state's performance within a national context and encourages each state to "measure up" to the highest-performing states. The Affordability category is the exception. In this category, the state's current performance is compared with the performance of the best states in the late 1990s, since current performance reflects a trend to "measure down" rather than "measure up." All but one state receive an "F" in Affordability. The failing grades in this category confirm the fast decline in affordable higher education for American families. Despite state and federal increases in student financial aid, the over-

all portion of income that most families must devote for higher education continues to escalate.

In *Measuring Up 2008*, state performance in higher education is assessed in three ways:

Graded Information: Each state's current performance is compared with that of the best-performing states, and the results are indicated by letter grades.

Change Over Time: Change Over Time indicators compare each state's current performance with its own previous performance in the 1990s. For each category, the state's change is determined by its improvement or decline in performance on a key indicator in that category. This information is displayed in two ways. First, states receive either an "up" or a "down" arrow in each performance area (see page 3). An "up" arrow indicates that the state has increased or remained stable on the key indicator in the category, a "down" arrow indicates that the state has declined on the key indicator in the category. Secondly, information about Change Over Time is presented graphically in greater detail on the fourth page of this report card.

International Comparisons: As in 2006, this year's edition of *Measuring Up* offers international comparisons that reveal how well the United States and each of the 50 states are preparing residents with the knowledge and skills necessary to compete in a global economy. State performance is compared with the performance of nations that are associated with the Organisation for Economic Co-operation and Development (OECD).

In *Measuring Up 2008*, all states receive an "Incomplete" in Learning because there are not sufficient data to allow meaningful state-by-state comparisons. *Measuring Up 2006* provided state-specific information on Learning for nine states, but in 2008 no state collects and provides the information necessary to determine the state's "educational capital" — or the level of knowledge and skills possessed by its residents.

A Snapshot of Grades and Change Over Time

Preparation:

Grades: 6 states received an A, 18 states received a B, 21 states received a C, 5 states received a D, and no state received an F.

Change Over Time:* 34 states have improved or remained stable on the key indicator and 16 states have declined on the key indicator.

Participation:

Grades: 2 states received an A, 8 states received a B, 22 states received a C, 15 states received a D, and 3 states received an F.

Change Over Time:* 43 states have improved or remained stable on the key indicator and 7 states have declined on the key indicator.

Affordability:

Grades: 1 state received a C and 49 states received an F.

Change Over Time:* 2 states have improved or remained stable on the key indicator and 48 states have declined on the key indicator.

Completion:

Grades: 11 states received an A, 20 states received a B, 16 states received a C, 1 state received a D, and 2 states received an F.

Change Over Time:* 48 states have improved or remained stable on the key indicator and 2 states have declined on the key indicator.

Benefits:

Grades: 5 states received an A, 15 states received a B, 19 states received a C, 10 states received a D, and 1 state received an F.

Change Over Time:* 50 states have improved or remained stable on the key indicator.

*For the key indicators for Change Over Time, please see the five indicators with asterisks on page 4.

Massachusetts



PREPARATION

A

2008 Grade



Change Over Time

Massachusetts performs well in preparing its young people for college, but there are large gaps by ethnicity.

- Massachusetts is a top state in the performance of 8th graders in math, science, reading, and writing.
- However, only 80% of Hispanics have a high school credential, compared with 94% of whites.

PARTICIPATION

B-

2008 Grade



Change Over Time

The state does fairly well in providing college opportunities for its residents.

- The likelihood of enrolling in college by age 19 is very high, but the percentage of working-age adults enrolled in higher education has dropped substantially.
- Among young adults, 28% of Hispanics and 39% of blacks are enrolled in college, compared with 49% of whites.

AFFORDABILITY

F

2008 Grade



Change Over Time

Higher education has become less affordable for students and their families.

- Poor and working-class families must devote 49% of their income, even after aid, to pay for costs at public four-year colleges.
- Financial aid to low-income students is low. For every dollar in Pell Grant aid to students, the state spends 57 cents.

COMPLETION

A

2008 Grade



Change Over Time

Massachusetts performs well in awarding certificates and degrees relative to the number of students enrolled.

- Sixty-eight percent of college students complete a bachelor's degree within six years—a top performance compared with other states.

REPORT CARD

Preparation

A

Participation

B-

Affordability

F

Completion

A

Benefits

A

Learning

I

BENEFITS

A

2008 Grade



Change Over Time

Massachusetts is a top performer in the proportion of residents with a bachelor's degree, but there are substantial gaps by ethnicity.

- Fifteen percent of Hispanics have a bachelor's degree, compared with 43% of whites—one of the largest gaps in the nation.
- If all racial/ethnic groups had the same educational attainment and earnings as whites, total annual personal income in the state would be about \$10 billion higher.

LEARNING

I

2008 Grade

Like all states, Massachusetts receives an "Incomplete" in Learning because there is not sufficient data to allow meaningful state-by-state comparisons.

WHAT DO THE ARROWS MEAN?



State has increased or remained stable on the key indicator in the category.

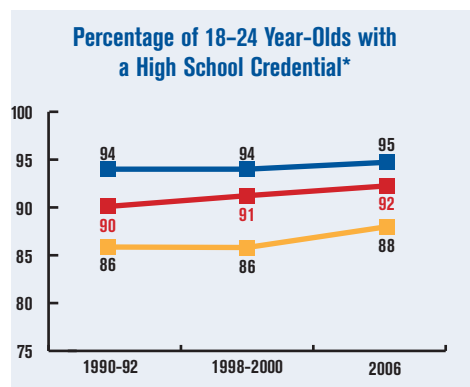


State has declined on the key indicator in the category.

This page reflects Massachusetts' performance and progress since the early 1990s on several key indicators.

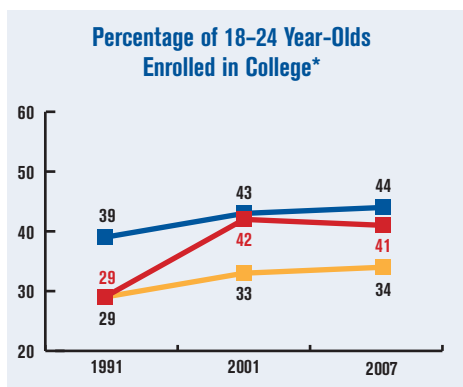
PREPARATION

The percentage of young adults in Massachusetts who earn a high school diploma has increased slightly since the early 1990s. High school completion is well above the U.S. average but slightly below the top-performing states.

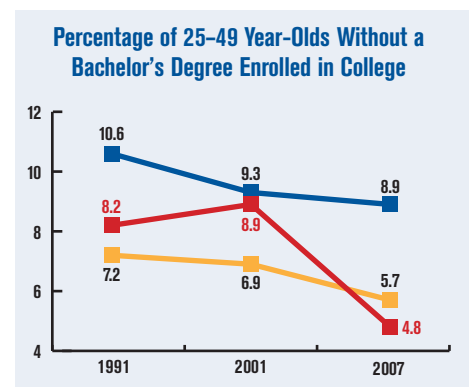


PARTICIPATION

College enrollment of young adults in Massachusetts has improved considerably since the early 1990s. The state is above the national average but slightly below the top states in the percentage of young adults enrolled.

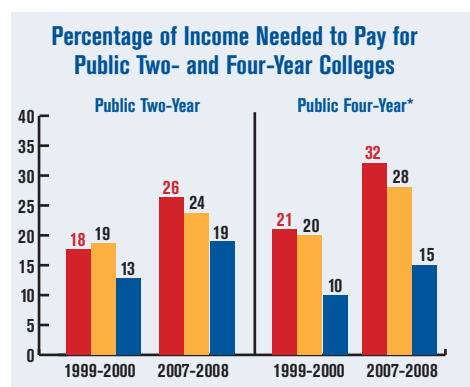


The enrollment of working-age adults, relative to the number of residents without a bachelor's degree, has declined substantially in Massachusetts—as it has nationally and in the best-performing states. The percentage attending college in Massachusetts is below the U.S. average and well below the top states.



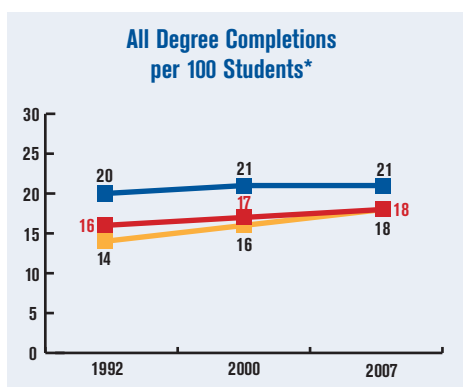
AFFORDABILITY

The share of family income, even after financial aid, needed to pay for college has risen substantially. To attend public two- and four-year colleges in Massachusetts, students and families pay more than the U.S. average and more than those in the best-performing states.



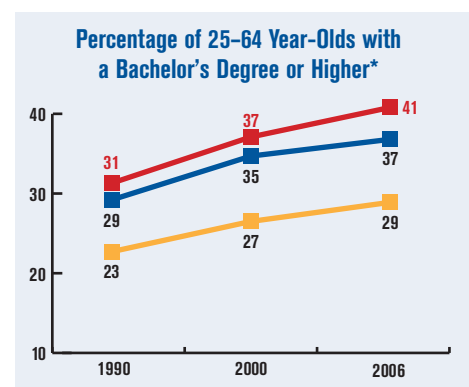
COMPLETION

The number of undergraduate credentials and degrees awarded in Massachusetts, relative to the number of students enrolled, has increased since the early 1990s. Massachusetts performs at the U.S. average but is below the top states on this measure.



BENEFITS

The percentage of residents who have a bachelor's degree has increased considerably in Massachusetts. The state is well above the U.S. average and is one of the top states.



*Key indicator for the category.

LEGEND:

—■— & ■ = Massachusetts

—■— & ■ = United States

—■— & ■ = Median of Top Five States



2008 Grade Change Over Time

Massachusetts performs well in preparing its young people for college, but there are large gaps by ethnicity.

Graded Information

Compared with other states:

- Ninety-two percent of young adults in Massachusetts earn a high school diploma or General Education Development (GED) diploma by age 24.
- A large proportion (42%) of 8th graders take algebra.
- Eighth graders perform very well on national assessments in math, science, reading, and writing, indicating that they are well prepared to succeed in challenging high school courses. Massachusetts is the top-performing state in math and reading and among the top-performing states in science and writing.
- Low-income 8th graders perform very well on national assessments in math. Massachusetts is among the top-performing states on this measure.
- Massachusetts is among the top performers in the proportions of 11th and 12th graders scoring well on Advanced Placement tests. Very large proportions of 11th and 12th graders score well on college entrance exams.
- Eighty-two percent of secondary school students are taught by qualified teachers, which compares very well with top-performing states.

Performance Gaps

- There is a 7% gap between whites and all minorities in the percentage of 18- to 24-year-olds with a high school credential. Among the same population, 87% of blacks and 80% of Hispanics, the largest minority populations in Massachusetts, have a high school credential, compared with 94% of whites.

PREPARATION	Massachusetts		Top States
	Early 1990s*	2008	
High School Completion (25%)			
18- to 24-year-olds with a high school credential	90%	92%	95%
K-12 Course taking (30%)			
9th to 12th graders taking at least one upper-level math course	n/a	n/a**	64%
9th to 12th graders taking at least one upper-level science course	n/a	n/a**	46%
8th grade students taking algebra	n/a	42%	47%
K-12 Student Achievement (35%)			
8th graders scoring at or above "proficient" on the national assessment exam in math	23%	51%	41%
8th graders scoring at or above "proficient" on the national assessment exam in reading	36%	43%	39%
8th graders scoring at or above "proficient" on the national assessment exam in science	37%	41%	41%
8th graders scoring at or above "proficient" on the national assessment exam in writing	31%	46%	46%
Low-income 8th graders scoring at or above "proficient" on the national assessment exam in math	7%	25%	24%
Number of scores in the top 20% nationally on SAT/ACT college entrance exam per 1,000 high school graduates	138	263	265
Number of scores that are 3 or higher on an Advanced Placement subject test per 1,000 high school juniors and seniors	103	237	237
Teacher Quality (10%)			
7th to 12th graders taught by teachers with a major in their subject	n/a	82%	83%

*The indicators report data beginning in the early 1990s or the closest year for which reliable data are available. See the *Technical Guide for Measuring Up 2008*.

**Data are not available because the state did not participate in the national survey.

Change in Graded Measures

- Over the past 15 years, the percentage of 8th graders performing well on national assessments in math has more than doubled. Since 2000, Massachusetts has consistently performed very well on this measure.
- Over the past decade, the state has consistently performed very well on national assessments in science.
- During the same period, the proportion of 8th graders performing well on national assessments in reading has increased by 19%, and Massachusetts has consistently performed very well on this measure.
- The state has also consistently performed very well on national assessments in writing over the past decade.
- During the same period, the percentage of low-income 8th graders performing well on national assessments in math has more than tripled.

- Over the past 15 years, the proportions of 11th and 12th graders scoring well on college entrance exams have increased substantially.

Other Key Facts

- Among working-age adults (ages 25 to 49) without a high school diploma, only eight out of 1,000 earned a GED.
- About 12% of children under age 18 live in poverty, compared with a national rate of 18%.
- Policymakers and state residents do not have access to important information about the courses students take in high school because the state declined to participate in the national survey.

The preparation category measures how well a state's K-12 schools prepare students for education and training beyond high school. The opportunities that residents have to enroll in and benefit from higher education depend heavily on the performance of their state's K-12 educational system.



2008 Grade Change Over Time



The state does fairly well in providing college opportunities for its residents.

Graded Information

Compared with other states:

- The chance of Massachusetts high school students enrolling in college by age 19 is very high.
- However, a very low percentage of working-age adults (ages 25 to 49) are enrolled in college-level education or training.

Performance Gaps

- There is a 10% gap between whites and all minorities in the percentage of 18- to 24-year-olds enrolled in college. The gap between whites and Hispanics is 21%, and the gap between whites and blacks is 10%.

Change in Graded Measures

Since the early 1990s:

- The chance of enrolling in college by age 19 has increased by 15%, compared with a nationwide increase of 8%. Although a smaller percentage of students graduate from high school in four years, more of those who graduate enroll in college.
- The percentage of working-age adults (ages 25 to 49) who are enrolled in education or training beyond high school has declined by 41%, among the largest declines in the nation.

PARTICIPATION	Massachusetts		Top States
	Early 1990s*	2008	
Young Adults (67%)			
Chance for college by age 19	47%	54%	57%
18- to 24-year-olds enrolled in college	29%	41%	44%
Working-Age Adults (33%)			
25- to 49-year-olds enrolled in any type of postsecondary education with no bachelor's degree or higher	8.2%	4.8%	8.9%

*The indicators report data beginning in the early 1990s or the closest year for which reliable data are available. See the *Technical Guide for Measuring Up 2008*.

Other Key Facts

- Massachusetts' population is projected to grow by 6% from 2005 to 2025, below the national increase of 18%. During approximately the same period, the number of high school graduates is projected to decrease by 10%.
- About 12% of the adult population has less than a high school diploma or its equivalent, compared with 16% nationwide.
- In Massachusetts, 7,365 more students are entering the state than leaving to attend college. About 30% of Massachusetts high school graduates who go to college attend college out of state.

The participation category addresses the opportunities for state residents to enroll in higher education. A strong grade in participation generally indicates that state residents have high individual expectations for education and that the state provides enough spaces and types of educational programs for its residents.



2008 Grade Change Over Time



Higher education has become less affordable for students and their families.

Graded Information

- Compared with best-performing states, families in Massachusetts devote a very large share of family income, even after financial aid, to attend public two-year, public four-year, and private four-year colleges and universities in the state.
- The state's investment in need-based financial aid is low when compared with top-performing states, and Massachusetts does not offer low-priced college opportunities.
- Undergraduate students borrowed on average \$4,408 in 2007.

Change in Graded Measures

- Since the late 1990s, the share of family income, even after financial aid, needed to pay for college expenses at public four-year institutions has increased from 21% to 32%.
- Since the early 1990s, the state has substantially increased its investment in need-based financial aid. Nonetheless, the share of family income, even after financial aid, needed to pay for college remains very large when compared with other states.

Other Key Facts

- In Massachusetts, 26% of students are enrolled in community colleges, 25% in public four-year colleges and universities, and 49% in private four-year institutions.

AFFORDABILITY	Massachusetts		Top States in Previous Years
	Previous Years*	Current Year	
Family Ability to Pay (50%)	2000	2008	
Percent of income (average of all income groups) needed to pay for college expenses minus financial aid:			
at community colleges	18%	26%	13%
at public 4-year colleges/universities	21%	32%	10%
at private 4-year colleges/universities	69%	92%	30%
Strategies for Affordability (40%)	1993	2008	
State investment in need-based financial aid as compared to the federal investment	38%	57%	89%
At lowest-priced colleges, the share of income that the poorest families need to pay for tuition	25%	25%	7%
Reliance on Loans (10%)	1995	2008	
Average loan amount that undergraduate students borrow each year	\$3,454	\$4,408	\$2,619

*See the *Technical Guide for Measuring Up 2008*.

Note: In the affordability category, the lower the figures, the better the performance for all indicators except for "State investment in need-based financial aid."

The affordability category measures whether students and families can afford to pay for higher education, given income levels, financial aid, and the types of colleges and universities in the state.

Financial Burden to Pay for College Varies Widely by Family Income

Those who are striving to reach or stay in the middle class — the 40% of the population with the lowest incomes — earn on average \$21,130.

- If a student from such a family were to attend a community college in the state, their net cost to attend college would represent about 40% of their income annually.

Tuition, room, and board:	\$10,743
Financial aid received:	-\$2,231
Net college cost:	\$8,512
Percent of income:	40%

- If the same student were to attend a public four-year college in the state, their net cost to attend college would represent about 49% of their income annually.

Tuition, room, and board:	\$15,689
Financial aid received:	-\$5,353
Net college cost:	\$10,336
Percent of income:	49%

Note: The numbers shown for tuition, room, and board, minus financial aid may not exactly equal net college cost due to rounding.

A CLOSER LOOK AT FAMILY ABILITY TO PAY	Median Family Income	Community Colleges		Public 4-Year colleges/universities		Private Non-Profit 4-Year colleges/universities	
		Net college cost*	Percent of income needed to pay net college cost	Net college cost*	Percent of income needed to pay net college cost	Net college cost*	Percent of income needed to pay net college cost
Income groups used to calculate 2008 family ability to pay							
20% of the population with the lowest income	\$12,074	\$7,593	63	\$8,921	74	\$30,762	255
20% of the population with lower-middle income	\$31,303	\$9,488	30	\$11,611	37	\$29,414	94
20% of the population with middle income	\$54,334	\$10,305	19	\$13,801	25	\$29,664	55
20% of the population with upper-middle income	\$85,526	\$10,493	12	\$13,993	16	\$30,086	35
20% of the population with the highest income	\$150,929	\$10,586	7	\$14,335	9	\$31,917	21
40% of the population with the lowest income	\$21,130	\$8,512	40	\$10,336	49	\$30,123	143

*Net college cost equals tuition, room, and board, minus financial aid.



2008 Grade Change Over Time



Massachusetts performs well in awarding certificates and degrees relative to the number of students enrolled.

Graded Information

Compared with other states:

- Only a fair percentage (51%) of first-year students in community colleges return for their second year.
- A very high percentage (82%) of freshmen at public and private four-year colleges and universities return for their sophomore year, placing Massachusetts among the top-performing states on this measure.
- The state is also the top performer in the percentage (68%) of first-time, full-time college students who complete a bachelor's degree within six years of enrolling in college.
- In addition, a large proportion of students complete certificates and degrees relative to the number enrolled.
- Thirty-seven postsecondary certificates and degrees were awarded for every 1,000 people in the state without a college degree.

COMPLETION	Massachusetts		Top States
	Early 1990s*	2008	
Persistence (20%)**			
1st year community college students returning their second year	59%	51%	66%
Freshmen at 4-year colleges/universities returning their sophomore year	83%	82%	82%
Completion (80%)			
First-time, full-time students completing a bachelor's degree within 6 years of college entrance	64%	68%	65%
Certificates, degrees, diplomas at all colleges & universities per 100 undergraduate students	16	18	21
Certificates, degrees, diplomas at all colleges & universities per 1,000 adults with no college degree	34	37	44

*The indicators report data beginning in the early 1990s or the closest year for which reliable data are available. See the *Technical Guide for Measuring Up 2008*.

**2008 data may not be comparable with data from previous years.

Performance Gaps

- Among white students, 19 degrees are awarded for every 100 students. In contrast, among all minority students, 17 degrees are awarded for every 100 students. The rate of awards for blacks and Hispanics, the largest minority populations in Massachusetts, is 16 for every 100 undergraduate enrollments and 15 for every 100 undergraduate enrollments, respectively.

Change in Graded Measures

- Over the past decade, the state has consistently performed very well on the percentage of first-time, full-time college students earning a bachelor's degree within six years of enrolling in college.
- Since the early 1990s, Massachusetts has seen a slight increase in the number of certificates and degrees completed relative to the population with no college degree.

The completion category addresses whether students continue through their educational programs and earn certificates or degrees in a timely manner. Certificates and degrees from one- and two-year programs as well as the bachelor's degree are included.

BENEFITS

Massachusetts 2008



2008 Grade Change Over Time



Massachusetts is a top performer in the proportion of residents with a bachelor's degree, but there are substantial gaps by ethnicity.

Graded Information

Compared with other states:

- Massachusetts is a top performer in the proportion of residents who have a bachelor's degree, and this strengthens the state economy.
- In addition, residents contribute substantially to the civic good, as measured by charitable giving, volunteerism, and voting.

Performance Gaps

- There is a 13% gap between whites and minorities in the percentage of 25- to 64-year-olds with a bachelor's degree or higher. Among the same population, 15% of Hispanics and 22% of blacks, the largest minority populations in Massachusetts, have a bachelor's degree or higher, compared with 43% of whites.
- If all racial/ethnic groups had the same educational attainment and earnings as whites, total annual personal income in the state would be about \$10 billion higher.

Change in Graded Measures

- Since the early 1990s, the percentage of residents holding a bachelor's degree has increased by 30%, compared with an increase of 28% for the United States overall. Massachusetts has consistently performed very well on this measure when compared with other states.

BENEFITS	Massachusetts		Top States
	Early 1990s*	2008	
Educational Achievement (38%)			
Adults (ages 25 to 64) with an associate's degree or higher	40%	49%	44%
Adults (ages 25 to 64) with a bachelor's degree or higher	31%	41%	37%
Economic Benefits (31%)			
Increase in total personal income as a result of the percentage of population with some college (including an associate's degree), but not a bachelor's degree	2%	1%	3%
Increase in total personal income as a result of the percentage of population holding a bachelor's degree	10%	10%	11%
Civic Benefits (31%)			
Residents voting in national elections	62%	57%	65%
Of those who itemize on federal income taxes, the percentage declaring charitable gifts	93%	89%	90%
Increase in volunteering as a result of college education	16%	16%	20%
Adult Skill Levels (0%)**			
Quantitative Literacy	n/a	n/a	n/a
Prose Literacy	n/a	n/a	n/a
Document Literacy	n/a	n/a	n/a

*The indicators report data beginning in the early 1990s or the closest year for which reliable data are available. See the *Technical Guide for Measuring Up 2008*.

**State-level estimates on these measures are not currently available except for six states participating in an oversample; NCES intends to release limited 50-state data on this 2003 survey in 2009.

Other Key Facts

- In 2007, Massachusetts scored 96 on the New Economy Index, compared with a nationwide score of 62. The New Economy Index, created by the Kauffman Foundation, measures the extent to which a state is participating in knowledge-based industries. A higher score means increased participation.

The benefits category measures the economic and societal benefits that the state receives as a result of having well-educated residents.



2008 Grade

Like all states, Massachusetts receives an “Incomplete” in Learning because there are not sufficient data to allow meaningful state-by-state comparisons.

Measuring Up 2004 for the first time provided state-level results in Learning because five states (Illinois, Kentucky, Nevada, Oklahoma, and South Carolina) participated in a groundbreaking effort to pilot comparable measures in this category. The National Forum on College-Level Learning conducted this project, which was funded by the Pew Charitable Trusts.¹ These results were also included in *Measuring Up 2006*, which for the first time reported performance measures based on licensure and graduate admissions examination scores for all 50 states.

The approach used to examine Learning employed a method similar to that of the other five performance categories in *Measuring Up*. Indicators were developed in three categories:

1. Literacy Levels of College-Educated Residents. What are the abilities of the state’s college-educated population? The answer to this question constitutes the “educational capital” that the state can count on with respect to developing a twenty-first century workforce and a citizenry equipped to function effectively in civic and democratic processes.

2. Graduates Ready for Advanced Practice. To what extent do colleges and universities in the state educate students to be capable of contributing to the workforce? The answer to this question depends a great deal on the extent to which graduates of the state’s colleges and universities are ready to enter a licensed profession or participate in graduate study.

3. Performance of College Graduates. How effectively can the state’s college and university

graduates communicate and solve problems? This is the bottom line with respect to performance in learning that can only be determined by common direct assessments of college graduates.

To evaluate state performance on Learning in *Measuring Up 2004*, indicator results within each of these three categories were compiled for the pilot states and compared with a common standard: the national average on each measure. Performance on the resulting group of measures created a “learning profile” for

each state that shows how many percentage points above or below this national level the values of each of the state’s indicators fall.

Measuring Up 2008 uses the same method for portraying results in Learning, although the picture is incomplete. Results for Literacy Levels of College-Educated Residents can be calculated only for the six states (Kentucky, Maryland, Massachusetts, Missouri, New York, and Oklahoma) that participated in the State Assessment of Adult Literacy (SAAL)—a state-level version of the

National Assessment of Adult Literacy (NAAL) conducted in 2003. Results for Graduates Ready for Advanced Practice, which are based on common licensure and graduate admissions examinations, can be calculated for all 50 states. Results for Performance of College Graduates relied upon specially administered standardized assessments given to representative samples of the state’s about-to-graduate college students for five states in 2004. These measures were reported in *Measuring Up 2004* and *Measuring Up 2006*, but have not been repeated for 2008.

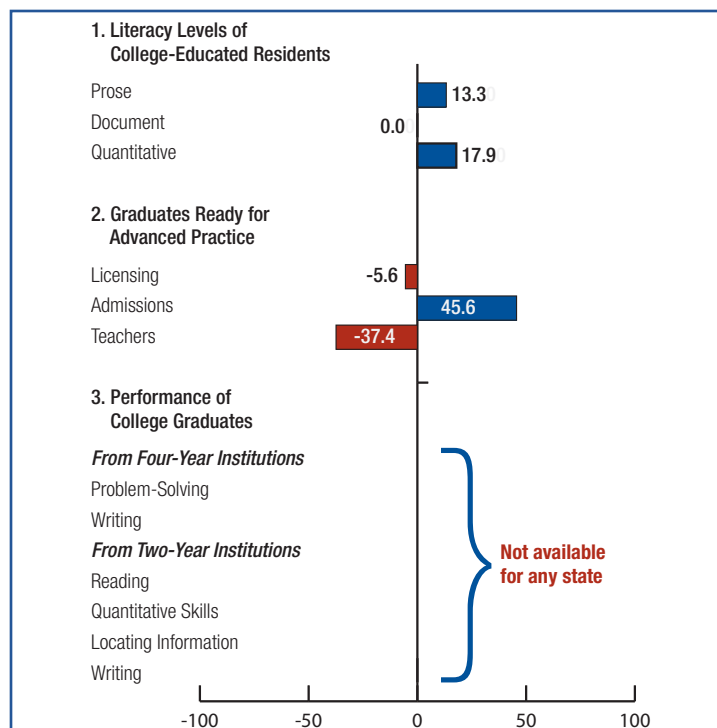
Massachusetts Results

Massachusetts is the best of the six states participating in the SAAL oversample study with respect to the literacy of its adult population. The state ranks more than 13 percentage points above the national benchmark in the

proportion of its college-educated citizens who are proficient in prose literacy. Thirty-four percent of Massachusetts’ college-educated citizens are proficient in prose literacy, compared with 30% nationally. The state performs even better in quantitative literacy. Thirty-three percent of its college-educated citizens are proficient in

this ability, compared with 28% nationally. The state’s performance on document literacy matches the national average. Twenty-four percent of Massachusetts’ college-educated citizens are proficient in this area.

Massachusetts is about six percentage points below the national benchmark in workforce preparation as reflected in professional licensure examinations. Fourteen percent fewer of the state’s graduates take such examinations than do graduates on average nationwide, and their pass rates are just above the national average. In contrast, Massachusetts is more than 45 percentage points above the national benchmark in preparing students for graduate study as reflected in graduate admissions examinations, which makes it the top-performing state on this measure. Seven percent more Massachusetts graduates take such examinations than do graduates on average nationwide, and the proportion earning competitive scores is more than 35% above the national average. Finally, Massachusetts is more than 37 percentage points below the national benchmark with respect to pass rates on teacher examinations.



1. A full report on the results of this project can be obtained from the National Center at http://www.highereducation.org/reports/mu_learning/index.shtml.

International Comparisons Massachusetts 2008

How Massachusetts Measures Up Internationally

Participation

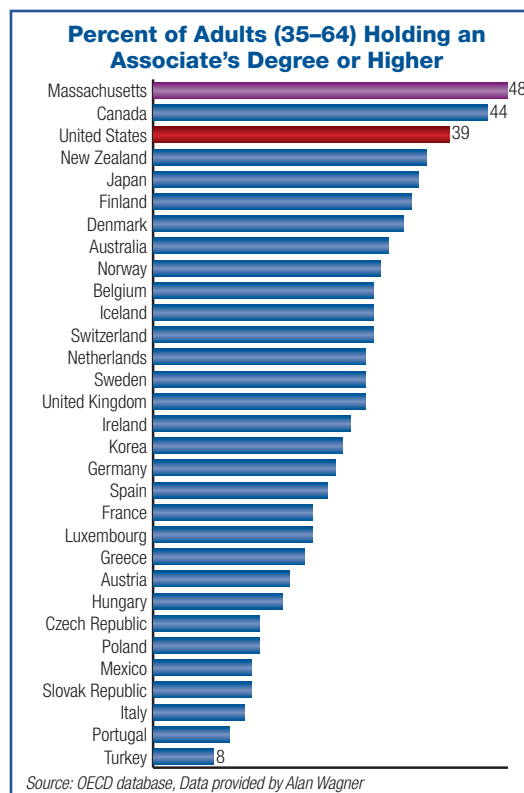
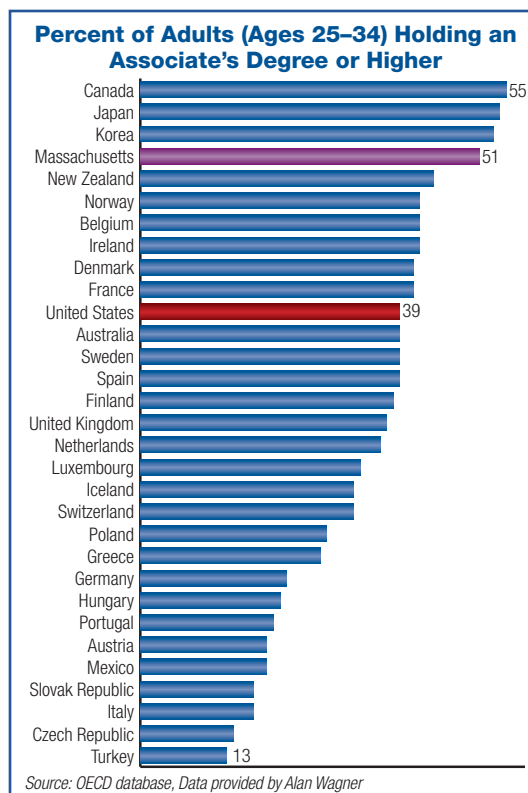
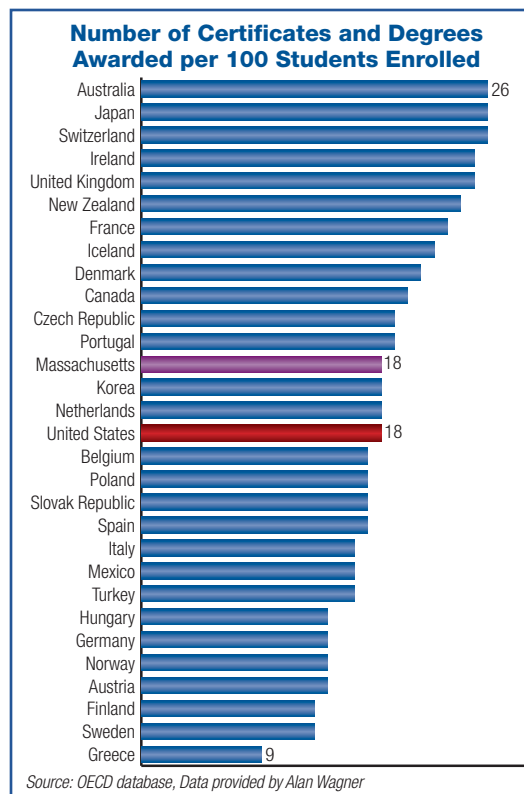
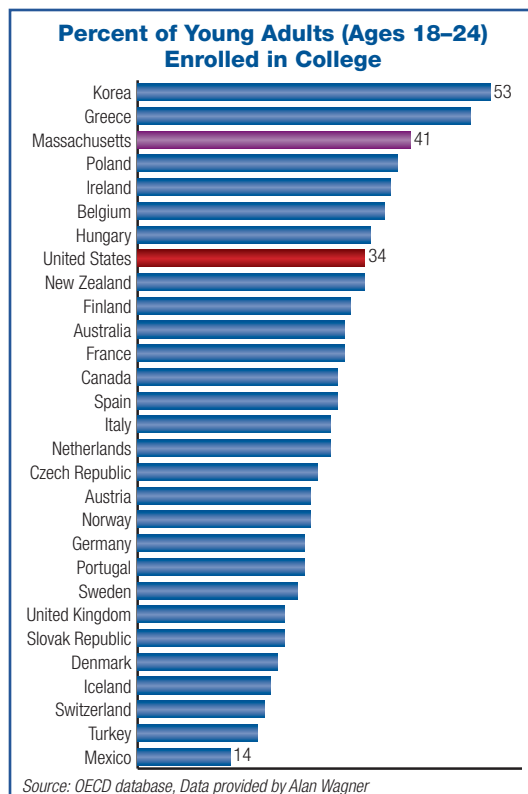
About 41% of young adults, ages 18 to 24, in Massachusetts are currently enrolled in college. Internationally, although Massachusetts' enrollment rate compares well with that of top countries, it is 12% less than the rate in Korea, the best-performing nation on this measure. Massachusetts is also surpassed by Greece.

Completion

When compared internationally, Massachusetts is surpassed by many countries in the proportion of students who complete certificates or degrees. With 18 out of 100 students enrolled completing a degree or certificate, Massachusetts' completion rate is only 71% of the rate in Australia, the top-performing country on this measure, where 26 out of 100 students complete certificates or degrees. Massachusetts also lags Japan, Switzerland, Ireland, the United Kingdom, New Zealand, France, Iceland, Denmark, Canada, the Czech Republic, and Portugal.

Educational Level of Adult Population

Massachusetts' younger adults, ages 25 to 34, are ahead of older adults, ages 35 to 64, in attaining a college degree. When compared internationally, Massachusetts is among the leaders in the educational attainment of younger adults. Many countries, however, have made substantial progress in educating younger adults, so that Massachusetts is now surpassed by Canada, Japan, and Korea on this measure.



State Context	Massachusetts	State Rank
Population (2007)	6,449,755	14
Gross State Product (2007, in millions)	\$351,514	13
Leading Indicators	Massachusetts	U.S.
Projected % change in population (2005-2025)	6%	18%
Projected % change in number of all high school graduates (2005-2022)	-10%	9%
Projected budget surplus/shortfall by 2013	-2%	-6%
Median income of poorest 20% of population (2006)	\$12,074	\$11,169
Children in poverty (2006)	12%	18%
Percent of adult population with less than a high school diploma or equivalent (2006)	12%	16%
GEDs awarded to 25- to 49-year-olds with no high school diploma (2006)	8	8
New Economy Index (2007)*	96	62
Facts and Figures	Massachusetts	
	Number/Amount	Percent
Institutions of Postsecondary Education (2007-08)		
Public 4-Year	15	12%
Public 2-Year	16	13%
Private 4-Year	83	68%
Private 2-Year	8	7%
Students Enrolled by Institution Type (2006)		
Public 4-Year	82,553	25%
Public 2-Year	85,557	26%
Private 4-Year	164,246	49%
Private 2-Year	3,155	1%
Students Enrolled by Level (2006)		
Undergraduate	335,511	74%
Graduate	99,380	22%
Professional	16,635	4%
Enrollment Status of Students (2006)		
Full-time	310,900	69%
Part-time	140,626	31%
Net Migration of Students (2006)		
Positive numbers for net migration mean that more students are entering than leaving the state to attend college. Negative numbers reveal the reverse.	7,365	
Average Tuition (2007-08)		
Public 4-year institutions	\$7,988	
Public 2-year institutions	\$3,042	
Private 4-year institutions	\$30,631	
State and Local Appropriations for Higher Education		
Per \$1,000 of personal income, FY 2008	\$3	
Per capita, FY 2008	\$163	
% change, FY 1998-2008		14%

* This index, created by the Kauffman Foundation, measures the extent to which a state is participating in knowledge-based industries. A higher score means increased participation.

Questions and Answers about *Measuring Up 2008*

Q. Who is being graded in this report card, and why?

A. *Measuring Up 2008* grades states, not students or individual colleges or universities, on their performance in higher education. The states are responsible for preparing students for higher education by means of sound K-12 school systems, and they provide most of the public financial support — approximately \$77 billion in 2008 — for colleges and universities. Through their oversight of public institutions of higher education, state leaders affect the types and number of education programs available in the state. State leaders also determine the limits of financial support and often influence tuition and fees for public colleges and universities. They also establish how much state-based financial aid is available to students and their families, which affects students attending both private and public colleges and universities. In addition, state economic development policies influence the income advantage that residents receive from having some college experience or a college degree.

Q. How are states graded?

A. States receive letter grades in each performance category. Each category consists of several indicators, or quantitative measures — a total of 36 indicators in the five graded categories. Grades are calculated based on each state's current performance on these indicators, relative to the best-performing states. Grades in *Measuring Up 2008* reflect state performance for 2006 or 2007, the most recent information available.

For the sixth category, Learning, states receive an “Incomplete” because there is not sufficient information about student learning for meaningful state-by-state comparisons.

Q. What sources of information are used to determine the grades?

A. All data used to grade states in *Measuring Up 2008* were collected from reliable national sources, including the U.S. Census Bureau and the U.S. Department of Education. All data are the most recent public information available for state comparisons. Please see the *Technical Guide for Measuring Up 2008* for more information regarding data sources.

Q. How do we measure Change Over Time?

A. Change Over Time indicators compare each state's current performance with its own previous performance in the 1990s. For each category, the state's change is determined by its improvement or decline in performance on a key indicator in that category. This information is displayed in two ways. First, states receive either an “up” or a “down” arrow in each performance area (see page 3). An “up” arrow indicates that the

state has increased or remained stable on the key indicator in the category, a “down” arrow indicates that the state has declined on the key indicator in the category. Secondly, information about Change Over Time is presented graphically in greater detail on the fourth page of this report card.

Q. What is new in *Measuring Up 2008*?

A. This year the National Center replaced the data from the Census Bureau's Current Population Survey (CPS) with the American Community Survey (ACS), also administered by the Census Bureau. The ACS has a sample size of three million households (as of 2005), and will eventually replace the long survey form of the decennial census. Because of its large sample size, it is a valuable resource for state data. This new data source affects several indicators in the preparation, participation, completion, and benefits categories. For more information on these indicators, see *Technical Guide for Measuring Up 2008* at www.highereducation.org. In addition, *Measuring Up 2008* includes two new indicators, one in Completion and one in Benefits. These new indicators can be found in the *Technical Guide for Measuring Up 2008*.

Q. What information is provided but not graded?

A. The state report cards highlight important gaps in college opportunities for various income and ethnic groups, they identify improvements and setbacks in each state's performance over time, and they compare state performance in higher education with other countries. Each state report card also presents important contextual information, such as demographic trends, student migration data, and state funding levels for higher education.

Q. Why does *Measuring Up 2008* include international indicators?

A. As in 2006, this year's edition of *Measuring Up* provides information on key international indicators of educational performance. In the global economy, it is critical for each nation to establish and maintain a competitive edge through the ongoing, high-quality education of its population. *Measuring Up 2008* offers international comparisons that reveal how well the United States and each of the 50 states are preparing residents with the knowledge and skills necessary to compete in a global economy. As with other data in the report card, each international measure is based on the most current data available. In this case, the data are from the Organisation for Economic Co-operation and Development (OECD). International comparisons are used to gauge the states' and the nation's standing relative to OECD countries on the participation and educational success of their populations. Please see the *Technical Guide for Measuring Up 2008* for more information regarding data sources.

State Grades 2008

State	Preparation	Participation	Affordability	Completion	Benefits	Learning
Alabama	D+	D+	F	C-	C	I
Alaska	C+	F	F	F	C+	I
Arizona	D	A	F	B	B-	I
Arkansas	C-	D+	F	C-	D+	I
California	C+	C	C-	B-	B+	I
Colorado	A-	C+	F	B-	B+	I
Connecticut	A	C-	F	B-	A-	I
Delaware	C+	C-	F	B	C+	I
Florida	C	D	F	B+	C	I
Georgia	C+	D-	F	B-	B	I
Hawaii	C-	D	F	C	B-	I
Idaho	C	D	F	C	C-	I
Illinois	B	C	F	B+	B	I
Indiana	C	C	F	B-	D+	I
Iowa	B	A	F	A	C+	I
Kansas	B	B-	F	B	C+	I
Kentucky	C	C	F	B	D+	I
Louisiana	D-	F	F	C+	D	I
Maine	B-	C-	F	C+	C	I
Maryland	A-	C	F	B-	A	I
Massachusetts	A	B-	F	A	A	I
Michigan	C	C	F	C+	B+	I
Minnesota	B	B	F	A	B	I
Mississippi	D	D+	F	C	D	I
Missouri	C+	C	F	B	C+	I
Montana	B-	D+	F	C-	C+	I
Nebraska	B-	B	F	B+	B	I
Nevada	C	F	F	F	D	I
New Hampshire	B	C-	F	A-	B	I
New Jersey	A-	C	F	C+	A-	I
New Mexico	D-	B-	F	D+	C+	I
New York	B	D+	F	B+	B	I
North Carolina	B-	D+	F	B-	C+	I
North Dakota	B-	B+	F	A	D	I
Ohio	B-	C-	F	B-	C+	I
Oklahoma	C-	C-	F	C	D+	I
Oregon	C+	D	F	C+	B+	I
Pennsylvania	B-	C-	F	A	C	I
Rhode Island	C+	C+	F	A	B-	I
South Carolina	C+	D-	F	C+	C	I
South Dakota	B	B	F	B	D+	I
Tennessee	C	D	F	C	C	I
Texas	B	D-	F	C-	C+	I
Utah	B	B-	F	B+	B	I
Vermont	A-	C	F	A-	C+	I
Virginia	B+	C	F	B	A	I
Washington	C+	D	F	A-	B	I
West Virginia	C	C	F	C	F	I
Wisconsin	B	C+	F	A-	C	I
Wyoming	C	C	F	A	D-	I

State Change Over Time on Key Indicators

State	Preparation	Participation	Affordability	Completion	Benefits
Alabama	↑	↑	↓	↑	↑
Alaska	↑	↓	↓	↑	↑
Arizona	↑	↑	↓	↑	↑
Arkansas	↑	↑	↓	↑	↑
California	↑	↑	↓	↑	↑
Colorado	↓	↓	↓	↑	↑
Connecticut	↑	↑	↓	↑	↑
Delaware	↓	↑	↓	↑	↑
Florida	↑	↑	↓	↑	↑
Georgia	↓	↑	↓	↑	↑
Hawaii	↑	↑	↓	↑	↑
Idaho	↑	↓	↓	↑	↑
Illinois	↑	↑	↓	↑	↑
Indiana	↓	↑	↓	↑	↑
Iowa	↓	↑	↓	↓	↑
Kansas	↓	↑	↓	↑	↑
Kentucky	↑	↑	↓	↑	↑
Louisiana	↓	↑	↓	↑	↑
Maine	↑	↑	↓	↑	↑
Maryland	↑	↑	↓	↑	↑
Massachusetts	↑	↑	↓	↑	↑
Michigan	↑	↑	↓	↑	↑
Minnesota	↓	↑	↓	↑	↑
Mississippi	↓	↑	↓	↑	↑
Missouri	↑	↑	↓	↑	↑
Montana	↓	↑	↓	↑	↑
Nebraska	↓	↑	↓	↑	↑
Nevada	↑	↑	↓	↑	↑
New Hampshire	↑	↑	↓	↑	↑
New Jersey	↑	↑	↓	↑	↑
New Mexico	↑	↑	↓	↑	↑
New York	↑	↑	↑	↑	↑
North Carolina	↑	↑	↓	↑	↑
North Dakota	↑	↓	↓	↓	↑
Ohio	↑	↑	↓	↑	↑
Oklahoma	↑	↓	↓	↑	↑
Oregon	↓	↑	↓	↑	↑
Pennsylvania	↑	↑	↓	↑	↑
Rhode Island	↑	↑	↓	↑	↑
South Carolina	↑	↑	↓	↑	↑
South Dakota	↑	↑	↓	↑	↑
Tennessee	↑	↑	↑	↑	↑
Texas	↑	↑	↓	↑	↑
Utah	↓	↓	↓	↑	↑
Vermont	↑	↑	↓	↑	↑
Virginia	↑	↑	↓	↑	↑
Washington	↓	↑	↓	↑	↑
West Virginia	↑	↑	↓	↑	↑
Wisconsin	↓	↑	↓	↑	↑
Wyoming	↓	↓	↓	↑	↑

Key Indicators by Category:

Preparation: Percentage of 18- to 24-year-olds with a high school credential (1990 to 2006)

Participation: Percentage of 18- to 24-year-olds enrolled in higher education (1991 to 2007)

Affordability: Percentage of income (average of all income groups) needed to pay for college expenses at public four-year institutions (1999-2007)

Completion: All degree completions per 100 students (1992 to 2007)

Benefits: Percentage of 25- to 64-year-olds with a bachelor's degree or higher (1990 to 2006)

Measuring Up 2008 Resources

To view *Measuring Up 2008* and its resources visit www.highereducation.org

National Picture

- **2008 Snapshot:** Performance overview on national maps
- **Improvements and Declines:** The nation's performance since the early 1990s
- **Download** the national report in PDF format

State Reports

- **State Report Cards:** A comprehensive picture of higher education in each state
- **Download** each state's report card in PDF format

Compare States

- **Graded Performance:** Compare state results by performance category
- **State Facts:** Compare non-graded state information
- **Index Scores** (sort/compare/map): Sort states by their rank within each category and create a national map based on individual indicator scores

Commentary

- **Foreword**, by Governor James B. Hunt Jr., Chairman, the National Center's Board of Directors
- **The 2008 National Report Card: Modest Improvements, Persistent Disparities, Eroding Global Competitiveness** by Patrick M. Callan, President, The National Center
- **The Information Gap: Much Talk, Little Progress**, by Dennis P. Jones, President of the National Center for Higher Education Management Systems

- **Stuck on Student Learning**, by Peter T. Ewell, Vice President of the National Center for Higher Education Management Systems
- **Facing the Nation: The Role of College Leaders in Higher Education Policy**, by David W. Breneman, University Professor and Director, University of Virginia

News Room

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- **State Press Releases**
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To view *Measuring Up 2008* individual state report cards for each of the 50 states, visit www.highereducation.org.



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The *Measuring Up 2008* national and state report cards on higher education were made possible by grants from the Bill and Melinda Gates Foundation and the Lumina Foundation for Education.

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